TECHNOLOGY ADMINISTRATION

OFFICE OF THE UNDER SECRETARY/OFFICE OF TECHNOLOGY POLICY

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

NATIONAL TECHNICAL INFORMATION SERVICE

FISCAL YEAR 2000

BUDGET REQUEST TO CONGRESS

Exhibit 1

DEPARTMENT OF COMMERCE
TECHNOLOGY ADMINISTRATION
and
OFFICE OF THE UNDER SECRETARY/OFFICE OF TECHNOLOGY POLICY
Budget Estimates, Fiscal Year 2000
Congressional Submission

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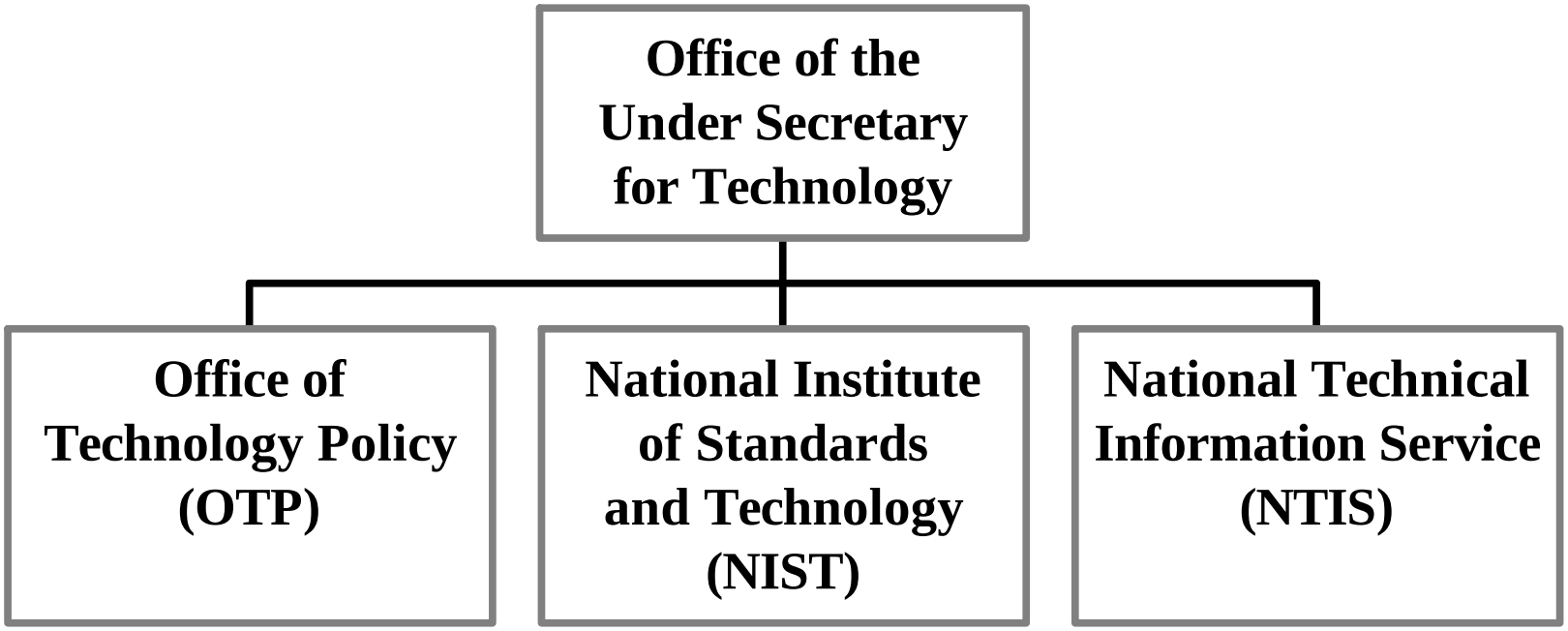
Technology Administration



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DEPARTMENT OF COMMERCE
TECHNOLOGY ADMINISTRATION
Budget Estimates, Fiscal Year 2000
Congressional Submission

GENERAL STATEMENT

Goals of the Program

More than ever before, U.S. economic growth and prosperity depend on technology. Technology underpins America's fastest growing industries and high wage jobs and provides the tools necessary to compete in every business. The link between technological advancement and economic prosperity is clear: technology may be the single most important determining factor in sustained economic growth. Leading economists estimate that technology accounts for as much as 50 percent of the Nation's long-term economic growth, and the study, "Technology, Economic Growth, and Employment: New Research from the Department of Commerce," found that firms employing advanced technologies are significantly more productive, pay higher wages, offer more secure jobs, and increase employment more rapidly than those that do not.

Meanwhile, global competition is intensifying. Nations everywhere have recognized the link between technology and growth and are rapidly expanding their scientific and technological capabilities. Their governments are developing a range of policies and programs to enhance the competitiveness of their industries and fuel technology-driven growth and job creation. These governments are also aggressively targeting technical capabilities and technologies in newly emerging and strategic markets for the benefit of their companies. There is every indication that the competitive pressure will only increase.

The Clinton Administration has sought to address these new economic and competitive realities by developing both domestic and international policies and programs—in partnership with American industry—that enhance U.S. competitiveness in the global marketplace and maximize technology's contribution to national economic growth, job creation, and quality of life. President Clinton has articulated a clear role for government in fostering the development of civilian technology in partnership with industry and emphasizes the creation of a favorable business climate. The Commerce Department's Technology Administration (TA) serves as the focal point for these efforts, advocating an agenda to ensure that American companies and workers have the tools needed to compete and win in today's global economy. The Technology Administration is the primary Federal agency charged with the explicit mission of working with U.S. industry to maximize technology's contribution to U.S. economic growth. The Technology Administration seeks to encourage the development of the

technological infrastructure required to support U.S. industry into the 21st century; to foster the development, diffusion, and adoption of new technologies; to disseminate technological information; and to create a business environment conducive to innovation. These efforts support two of the major themes of the DoC Mission as stated in the Commerce Strategic Plan: to build for the future and promote U.S. competitiveness in the global marketplace by strengthening and safeguarding the Nation's economic infrastructure; and to keep America competitive with cutting-edge science and technology and a world-class information base. Led by the Under Secretary for Technology, the Technology Administration fulfills its responsibilities through its three component agencies and the Office of the Under Secretary:

The Office of the Under Secretary for Technology provides broad policy guidance to the Secretary of Commerce and the Technology Administration's component agencies and serves as an advocate for innovation and industrial competitiveness within and outside of government. The Under Secretary coordinates the civilian technology efforts of all Federal agencies and helps to shape Federal civilian R&D priorities based upon the views of industry. The Under Secretary also provides counsel to the Secretary of Commerce on all matters affecting innovation and coordinates with counterparts in the trade and economic agencies to create unified, integrated trade and technology policies. The Under Secretary also oversees the Office of Space Commercialization (OSC) which promotes and develops policies for the commercial use of space.

The **Office of Technology Policy** (OTP) is the only office in the Federal government whose explicit mission is to work in partnership with the private sector to develop, coordinate, and advocate national policies that maximize technology's contribution to U.S. competitiveness, economic growth, the creation of high-wage jobs, and the improvement of living standards for all Americans. OTP's international activities include listening to U.S. industry's problems accessing foreign technology, advocating for policies and programs to eliminate impediments to accessing foreign technology, and participating in bilateral and multilateral technology policy activities in countries and markets of strategic importance.

The **National Institute of Standards and Technology** (NIST) works with U.S. industry to address technology needs, delivering broadly useful results shared among companies, industries, and consumers. In addition to its core measurement, testing, and standards functions, NIST also conducts three key extramural programs: the Advanced Technology Program, to stimulate the development of high risk, broad impact technologies by U.S. firms; the Manufacturing Extension Partnership, to help smaller businesses adopt new manufacturing and management technologies; and the Baldrige National Quality Program, to help U.S. industries improve the performance and quality of their operations by providing clear standards and benchmarks of quality.

The **National Technical Information Service** (NTIS) collects and disseminates scientific, technical, engineering and related business information, serving more than 400,000 customers annually.

Statement of Objectives

Outlined below are highlights of the Technology Administration's plans, programs, and objectives for FY 2000:

- **Industry-Led Technology Development Partnerships:** Our Nation's competitiveness in years to come hinges on today's longer-term investment in civilian technology research and development. Statements by industry officials and other anecdotal evidence indicate a progressive shift by industry away from longer-term R&D. The Technology Administration's development agenda is actively addressing today's gaps in private industry R&D investment and is supporting industry in its development of civilian technologies through the following programs:

  Advanced Technology Program. The centerpiece of the Department's technology development agenda is the Advanced Technology Program (ATP), administered by NIST. This unique program funds the development of high-risk, broad impact technologies through a rigorously competitive, cost-shared program with companies of all sizes. While government provides the catalyst, industry conceives, cost-shares, manages, and executes all ATP projects. By providing cost-shared funding, ATP stimulates private industry to invest in high-risk, broad impact technologies that span the gap between basic research and product development. ATP support is designed to work with industry to solve technological challenges that stand in the way of private sector investment. Proposals are rigorously evaluated by technical and business experts who assess the technical merit, business plan, and economic potential of each proposal. As of December 1998, 431 projects have been selected, including 146 joint ventures. The awarded projects involve a commitment of over $1.39 billion in NIST funds and $1.40 billion in private sector funds over the lifetime of the projects. To date, ATP's cost-shared projects involve more than 1,000 participants, primarily companies, but also universities and research organizations. To date, over half of the ATP awards to single companies have gone to small firms, and over 70 percent of the awards to joint ventures have included small companies. A comprehensive study of over 200 projects funded from 1993-1995 shows that NIST's Advanced Technology Program is having a significant impact on the funded technology development areas by increasing industry's investment; accelerating the R&D process; stimulating broader, more challenging technology development; and reducing the time-to-market in highly competitive markets.

  NIST Measurement and Standards Laboratories Program. The world-class laboratory research and services at NIST are planned and implemented in cooperation with U.S. industry. These programs focus on providing the infrastructural technologies—such as measurements, standards, test methods, reference materials and data—that U.S. industry needs to continually improve its products and services. Industry traditionally underinvests in these technologies because they are used simultaneously by many firms and typically are embodied in products—making it difficult or impossible for individual firms or even industries to recover the R&D investment it would take to develop these technologies. NIST laboratories specialize in electronics and electrical engineering, manufacturing engineering, chemical science and technology, physics, materials science

and engineering, building and fire research, and computer science and applied mathematics. In addition, the Technology Services organization at NIST provides leadership in standards and measurement services as well as technology outreach assistance, including the Standard Reference Materials, Calibration, Standard Reference Data, and Weights and Measures programs. NIST actively seeks industrial, academic, and non-profit research partners on projects of mutual interest and has implemented 834 Cooperative Research and Development Agreements (CRADAs) from 1988 through 1998.

Partnership for a New Generation of Vehicles. Since its inception, the Partnership for a New Generation of Vehicles (PNGV) has made significant progress toward its goal of developing a production prototype vehicle which is comparable to today's automobiles in safety, cost, and amenities, but three times as fuel-efficient. With leadership from the Under Secretary for Technology, this ambitious venture is a public-private partnership among the Federal government and the Nation's auto makers and suppliers to strengthen U.S. competitiveness by developing critical automotive technologies.

- **Technology Deployment.** Once developed, a technology must be deployed to provide economic benefits. The Technology Administration has several initiatives and programs designed to disseminate scientific, technological, and business information to U.S. firms:

  Manufacturing Extension Partnership. The Manufacturing Extension Partnership (MEP), administered by NIST, focuses on the deployment of technologies to the more than 380,000 smaller manufacturers across the Nation whose success is critical to the Nation's economic health. Teamed with state and local organizations, the MEP program's extension centers offer small and medium-sized manufacturers access to both technical and management expertise—assistance that can bolster their productivity and ability to compete. At present, MEP has a nationwide network of MEP extension centers covering all 50 states, the District of Columbia, and Puerto Rico. While most MEP affiliates have been providing services for only a few years, results of ongoing surveys indicate that MEP's network of manufacturing extension services is fostering significant improvements in manufacturing and business performance. For example, based on a recent sample of MEP client companies around the country, MEP estimates that for FY 1998 alone, MEP services generated approximately $329 [1] million in new sales, $44 million in inventory savings, and $33 million in labor and material savings. MEP also estimates that its services leveraged approximately $256 million in additional capital investment by client firms. These estimates are conservative, as they represent only a subset of positive impacts and do not reflect cumulative impacts.

[1] Reflects updated data as of January 1999.

International Activities. As the Federal government's primary advocate for innovation and industrial competitiveness, OTP will continue to represent U.S. interests in international technology activities and multilateral forums, such as the Organization for Economic Cooperation and Development (OECD) and the Asia-Pacific Economic Cooperation (APEC) forum, helping American firms protect their intellectual property and secure access to foreign technology and production process knowledge.

National Technical Information Service. NTIS fuels technology deployment by revolutionizing public access to valuable federally-sponsored and foreign-collected scientific, technical, and business information. NTIS continues to develop, test, and enhance FedWorld, an innovative on-line network providing access to information from more than 60 different government agencies and programs. By providing immediate electronic access to information such as Federal Highway Administration safety reports, environmental and health statistics, U.S. government patent data, current Federal job announcements, and even IRS tax forms, FedWorld is helping America's managers and entrepreneurs run their businesses more effectively and efficiently. In 2000, the Administration intends to submit legislation providing NTIS with greater flexibility in performing its mission. The Technology Administration requests $2 million in appropriated funding for the agency in FY 2000 to partially fund NTIS document collection and archiving functions.

- **Leadership in Both the Public and Private Sectors.** As an advocate for American industry, the Technology Administration works both within and outside the government to advance the cause of U.S. competitiveness.

  Office of Technology Policy. OTP is the only Federal agency charged with working in partnership with American industry to develop, coordinate, and advocate national policies that enhance U.S. competitiveness in the global marketplace and maximize technology's contribution to economic growth, job creation, and quality of life**.** OTP has adopted an "industry as customer" focus, working with U.S. industry to facilitate the development, diffusion, and commercialization of new technologies by advocating pro-innovation policies and removing unnecessary barriers to innovation through efforts such as regulatory reform.

  Committee on Technology. By serving on the Executive Committee of the Committee on Technology within the President's National Science and Technology Council, the Under Secretary for Technology helps to establish clear national goals for Federal science and technology investments and to ensure that Federal civilian R&D priorities reflect the requirements of industry. The committee is currently coordinating several major Administration R&D initiatives in materials, construction and building, manufacturing infrastructure, electronics, and automotive technologies.

  OTP International Activities. Understanding the impediments to global technological competitiveness and access to foreign technology that U.S. industry encounters**,** OTP promotes policies and programs that eliminate impediments to accessing foreign

technology in various international markets of strategic importance and participates in bilateral and multilateral technology policy forums and programs to maximize the benefit to U.S. industry of science and technology agreements with other countries or regional entities such as the European Union. OTP also represents U.S. interests in multilateral economic and commercial entities, such as the Organization for Economic Cooperation and Development and Asia-Pacific Economic Cooperation forum.

Baldrige National Quality Program . The Technology Administration is helping to reinvigorate industry's commitment to aggressive performance and quality management through the Malcolm Baldrige National Quality Award. The annual government investment of several million dollars is leveraged by a contribution of over $100 million in-kind contributions from private sector and state and local organizations, including nearly $15 million presently in the Baldrige Foundation endowment raised by private industry to support the Baldrige Program. Each year more than 300 experts from industry, universities, government, and non-profit organizations, volunteer many hours reviewing applications for the award, conducting site visits, and providing each applicant with an extensive feedback report citing strengths and opportunities for improvement, and serving as Program ambassadors. To date, the Baldrige Award recipients have given more than 30,000 presentations reaching thousands of organizations. More than 1.7 million copies of the Baldrige Criteria for Performance Excellence have been distributed since 1988, and evidence indicates a long-term link between use of the Baldrige Criteria and improved business performance. Publicly traded U.S. companies that have received the Baldrige Award during the years 1988 to 1996, have outperformed the Standard & Poor's 500 by about 2.4. Managed by NIST, the Baldrige Award has had a tremendous national impact by challenging American companies of all sizes to meet the highest standards for managing their processes, ensuring a well-trained and involved workforce, and satisfying their customers.

National Medal of Technology. The National Medal of Technology, administered by OTP, is America's Nobel Prize. Awarded annually by the President, the Medal is our Nation's highest award for technological achievement. In recognizing those whose technological innovations have contributed to American job creation, economic prosperity, increased competitiveness and a higher standard of living, OTP also contributes to a better public understanding of the essential role that technology plays in today's global economy.

SUMMARY OF GOALS, OBJECTIVES, AND PERFORMANCE MEASURES

DoC Strategic Theme	Bureau Goal	Bureau Objective	Office/Program[1]	Outputs	Outcomes
1. Economic Infrastructure. Build for the future and promote U.S. competitiveness in the global marketplace by strengthening and safeguarding the Nation's economic infrastructure.	Improve the technological capability, productivity, and competitiveness of small manufacturers.	Transform a larger percentage of the Nation's small manufacturers into high performance enterprises.	NIST MEP	Advisory services provided; companies served.	Quality assessment: [2] Customer surveys and MEP National Advisory Board. Outcomes: Improved sales; inventory savings; labor and material savings; and capital investment attributed to MEP assistance.
	Assist U.S. businesses in continuously improving their productivity and efficiency by adopting performance and quality management practices.	Develop and continuously improve the Malcolm Baldrige National Quality Award, broadly disseminate criteria for evaluating performance, and promote quality awareness and performance excellence. Promote quality awareness and business excellence practices of small service businesses and manufacturers.	NIST BNQP	Number of business applications to MBNQA and Baldrige-based state programs per year; number of criteria mailed by BNQA and by Baldrige-based state programs per year; number of BNQP documents viewed or downloaded from the BNQP; and number of state and local quality programs supported.	Quality assessment: [2] Stakeholder review/National Quality Foundation. Outcomes: Economic study assessing impact on corporate performance management practices, profitability, and other factors.
2. Science, Technology, and Information. Keep America competitive with cutting-edge science and technology and a world-class information base.	Provide technical leadership for the Nation's measurement and standards infrastructure, and assure the availability of essential reference data and measurement capabilities.	Anticipate and address the Nation's most important needs for physical and information-based measurements and standards.	NIST Measurement and Standards Laboratories Program	Technical publications, standard reference materials, standard reference data; construction completed on schedule and within 110 percent of estimated cost.	Quality assessment: [2] Peer review. Outcomes: Economic impact studies of R&D spillovers to private industry; increased R&D productivity and efficiency; lower transaction costs; increased product quality.

1
ATP = Advanced Technology Program
MEP = Manufacturing Extension Partnership
NIST = National Institute of Standards and Technology
BNQP = Baldrige National Quality Program
NTIS = National Technical Information Service
US/OTP= Office of the Under Secretary/Office of Technology Policy

2 A description of NIST's overall performance evaluation system is provided in the NIST General Statement (Exhibit 3). Specific information on performance measurement also is included in each subactivity description – see each Exhibit 12.

DoC Strategic Theme	Bureau Goal	Bureau Objective	Office/Program[1]	Outputs	Outcomes
2. (Continued)		Strengthen the national system of standards, measurement, measurement traceability, and conformity assessment. Provide leadership in harmonizing international measurements and standards to facilitate international trade.	NIST Measurement and Standards Laboratories Program	Calibrations and tests; Standards committees involving NIST staff and chairmanships held; standard reference materials. Leadership positions held on international committees.	Quality assessment: [2] Peer review. Outcomes: Economic impact studies of R&D spillovers to private industry; increased R&D productivity and efficiency; lower transaction costs; increased product quality.
	Accelerate technological innovation and the development of new technologies that underpin future economic growth.	Encourage industry to increase investment in R&D for high-risk, broad-impact technologies. Accelerate the commercialization and broad diffusion of ATP-funded technologies.	NIST ATP	Cumulative number of technologies under commercialization; cumulative number of publications; cumulative number of patents filed and patents licensed; percent of projects involving R&D consortium reporting accelerated R&D cycle time, and reporting increase in longer-term and/or high-risk R&D.	Outcomes: Economic impact studies of R&D and economic spillovers; R&D composition; estimates of ratio of benefits to costs and social rate of return.
	Improve technology's contribution to U.S. competitiveness, economic growth, and job creation through the analysis, development, advocacy, and implementation of national technology policies and programs.	Coordinate and lead key interagency technology programs.	US/OTP	Medal of Technology nominations; PNGV progress toward goals (assessed via NRC peer review).	NA (outcomes from policy programs are determined by multiple institutional, organizational, economic and political factors).

DoC Strategic Theme	Bureau Goal	Bureau Objective	Office/Program[1]	Outputs	Outcomes
2. (Continued)		Coordinate and lead interagency efforts to strengthen technology partnerships between States and the Federal government. Improve the information base for science and technology policy.	US/OTP	USIP implementation initiatives with the States; EPSCOT evaluations. Reports published annually.	NA (outcomes from policy programs and advocacy are determined by multiple institutional, organizational, economic, and political factors; similarly, outcomes associated with knowledge generation [reports, analyses, workshops, etc.] typically are extended in time, intangible in nature, and diffuse in scope).
	Collect, preserve, and disseminate government technical, scientific, and business information.	Play a leadership role in assisting Federal agencies with dissemination of their scientific, technical, and business information. Provide services and infrastructure to control scientific, technical, and business related information and increase the effectiveness of systems for locating and delivering information in the form required by customers.	NTIS	Information products cataloged and indexed; items in archive. Number of documents stored electronically; number of documents reproduced from electronically stored media; web site accesses.	NA

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Department of Commerce
Technology Administration
Office of the Under Secretary/Office of Technology Policy
Salaries and Expenses
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

Page No.		Positions	FTE	Budget Authority	Direct Obligations
	Currently Available, 1999	52	49	$9,495	$11,133
	less: Prior Year Unobligated Balance				($1,638)
US/OTP - 5	plus: 2000 Adjustments to base	0	1	179	179
	2000 Base Request	52	50	9,674	9,674
	plus: 2000 Program changes	0	0	(702)	(702)
	2000 Estimate	52	50	8,972	8,972

			1998 Actual		1999 Currently Available		2000 Base		2000 Estimate		Increase/ (Decrease) Over 2000 Base	
	Comparison by activity:		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
US/OTP - 11	Under Secretary for Technology	Pos./BA	50	$8,500	52	$9,495	52	$9,674	52	$8,972	0	($702)
	Office of Technology Policy	FTE/Obl.	48	6,708	49	11,133	50	9,674	50	8,972	0	(702)
	TOTALS	Pos./BA	50	8,500	52	9,495	52	9,674	52	8,972	0	(702)
		FTE/Obl.	38	6,708	49	11,133	50	9,674	50	8,972	0	(702)
	Adjustments to obligations:											
	Less: Prior year recoveries			(42)		0		0		0		0
	Less: Unobligated balance, start of year			0		(1,638)		0		0		0
	Unobligated balance, expiring			196		0		0		0		0
	Plus: Unobligated balance, end of year			1,638		0		0		0		0
	Financing from transfers:											
	Transfers from other accounts (-)			0		0		0		0		0
	Appropriation			8,500		9,495		9,674		8,972		(702)

Department of Commerce
Technology Administration
Office of the Under Secretary/Office of Technology Policy
Salaries and Expenses
SUMMARY OF REIMBURSABLE OBLIGATIONS
(Dollar amounts in thousands)

	Comparison by activity:		1998 Actual Personnel	1998 Actual Amount	1999 Currently Available Personnel	1999 Currently Available Amount	2000 Base Personnel	2000 Base Amount	2000 Estimate Personnel	2000 Estimate Amount	Increase/ (Decrease) Over 2000 Base Personnel	Increase/ (Decrease) Over 2000 Base Amount
US/OTP - 3	Under Secretary for Technology	Pos./BA	1	$1,066	1	$575	1	$575	1	$575	0	$0
	Office of Technology Policy	FTE/Obl.	1	1,066	1	575	1	$575	1	575	0	0
	TOTALS	Pos./BA	1	1,066	1	575	1	575	1	575	0	0
		FTE/Obl.	1	1,066	1	575	1	575	1	575	0	0

Exhibit 7

Department of Commerce
Technology Administration
Office of the Under Secretary/Office of Technology Policy
SUMMARY OF FINANCING
(Dollar amounts in thousands)

	1998 Actual	1999 Currently Available	2000 Base	2000 Estimate	Increase/ (Decrease) Over 2000 Base
Total Obligations	$7,774	$11,708	$10,249	$9,547	($702)
Financing:					
Offsetting collections from:					
Federal funds	(1,066)	(575)	(575)	(575)	0
Non-Federal sources	0	0	0	0	0
Recoveries	(42)	0	0	0	0
		0	0	0	0
Unobligated balance, start of year	0	(1,638)	0	0	0
Unobligated balance transferred	0	0	0	0	0
Unobligated balance, end of year	1,638	0	0	0	0
Unobligated balance expiring	196	0	0	0	0
Budget Authority	8,500	9,495	9,674	8,972	(702)
Financing:					
Transfer to other accounts	0	0	0	0	0
Transfer from other accounts	0	0	0	0	0
Appropriation	8,500	9,495	9,674	8,972	(702)

Department of Commerce
Office of the Undersecretary/Office of Technology Policy
Salaries and Expenses
ADJUSTMENTS TO BASE
(Dollar amounts in thousands)

	Perm Pos	FTE	Amount
Other Changes:			
1999 Pay raise (annualization)……	...	...	$37
2000 Pay raise……	...	...	131
Payment to the Working Capital Fund……	…	…	9
Annualization of positions financed in FY 1999..……	...	1	…
Personal Benefits:			
Civil Service Retirement System (CSRS)……	...	...	(10)
Federal Employees' Retirement System (FERS)……	...	...	13
Thrift Savings Plan (TSP)……	...	...	2
Federal Insurance Contribution Act (FICA)……	...	...	13
Health Insurance……	...	...	3
Employees' Compensation Fund……	...	...	(40)
Travel and transportation of persons……	...	...	4
Rental payments to GSA……	...	...	13
Communications, utilities, and miscellaneous charges……	...	...	3
Printing and reproduction……	...	...	7
Other services……	...	...	12
GA, Working Capital Fund……	...	...	84
Supplies and materials……	...	...	2
Equipment……	...	...	1
Subtotal, Adjustments to Base…….	**...**	**1**	**284**
Less Adjustments to Base Absorbed……	**…**	**0**	**(105)**
Total, Adjustments to Base……	**…**	**1**	**179**

Department of Commerce
Technology Administration
Office of the Under Secretary/Office of Technology Policy
Salaries and Expenses
JUSTIFICATION OF ADJUSTMENTS TO BASE
(Dollar amounts in thousands)

	FTE	Amount
Other Changes:		
1999 Pay raise (annualization)	0	$37

A pay raise of 3.6 percent was effective January 1, 1999.

Total cost in FY 2000 of 1999 pay raise	$147,000
Less amount requested in FY 1999	95,000
Less amount absorbed in FY 1999	15,000
Amount requested in 2000 to provide full-year cost of 1999 pay raise	37,000
Payment to Working Capital Fund	0
Total, 1999 pay raise increase in FY 2000	37,000

2000 Pay increase and related costs	0	140

A general pay raise of 4.4 percent was effective January 1, 2000.

Total cost in FY 2000 of pay increase	$131,000
Less amount absorbed in FY 2000	0
Amount requested for FY 2000 pay increase	131,000
Payment to Working Capital Fund	9,000
Total adjustment for FY 2000 pay increase	140,000

Annualization of positions financed in FY 1999 ..... 1 0

US/OTP requires one additional FTE to staff the FY 1999 funded initiative up to it's full operating level in FY 2000.

Personnel benefits 0 (19)

Civil Service Retirement System (CSRS)	(10)
Federal Employees' Retirement System (FERS).....	13
Thrift Savings Plan (TSP)	2
Federal Insurance Contribution Act (FICA) - OASDI	13
Health Insurance.....	3
Employees' Compensation Fund..... ...	(40)

Civil Service Retirement System (-$10,000) - The number of employees covered by the Civil Service Retirement System (CSRS) continues to drop as positions become vacant and are filled by employees who are covered by the Federal Employees' Retirement System (FERS). The estimated percentage of payroll for employees covered by CSRS will drop from 34.2 percent in FY 1999 to 30.6 percent in FY 2000. Contribution rates will remain the same.

Payroll subject to retirement systems ($3,322,000)	
Cost of CSRS contributions in FY 2000 ($3,322,000 x .306 x .0851)	$86,507
Cost of CSRS contributions in FY 1999 ($3,322,000 x .342 x .0851)	96,684
Total adjustment-to-base	(10,177)

Federal Employees' Retirement System ($13,000) - The number of employees covered by FERS continues to rise as employees covered by CSRS leave and are replaced by employees covered by FERS. The estimated percentage of payroll for employees covered by FERS will rise from 65.8 percent in FY 1999 to 69.4 percent in FY 2000. The contribution rate will remain at 10.7 percent in FY 2000.

Payroll subject to retirement systems ($3,322,000)	
Basic benefit cost in FY 2000 ($3,322,000 x .694 x .107)	$246,685
Basic benefit cost in FY 1999 ($3,322,000 x .658 x .107)	233,889
Total adjustment-to-base	12,796

Thrift Savings Plan ($2,000) - The cost of agency contributions to the Thrift Savings Plan will also rise as FERS participation increases. The contribution rate is expected to remain 2 percent.

Thrift plan cost in FY 2000 ($3,322,000 x .694 x .02)	$46,109
Thrift plan cost in FY 1999 ($3,322,000 x .658 x .02)	43,718
Total adjustment-to-base	2,391

Federal Insurance Contributions Act (FICA) - OASDI ($13,000) - As the percentage of payroll covered by FERS rises, the cost of OASDI contributions will increase. In addition, the maximum salary subject to OASDI tax will rise from $70,725 in FY 1999 to $73,275 in FY 2000. The OASDI tax rate will remain 6.2 percent in FY 2000.

FERS payroll subject to FICA tax in 2000 ($3,322,000 x .694 x .857 x .062)	$122,499
FERS payroll subject to FICA tax in 1999 ($3,322,000 x .658 x .812 x .062)	110,046
Increase (FY 1999-FY 2000)	12,453
OTP payroll subject to FICA tax in FY 2000 ($183,000 x .694 x .857 x .062)	$6,748
OTP payroll subject to FICA tax in FY 1999 ($183,000 x .658 x .812 x .062)	6,062
Change (FY 1999-FY 2000)	686
Total adjustment-to-base	13,139

Health insurance ($3,000) - Effective January 1998, US/OTP's contribution to Federal employees' health insurance premiums increased by 3.1 percent. Applied against the FY 1999 estimate, the FY 2000 health insurance costs are projected to increase by $3,000.

Employees' Compensation Fund (-$40,000) – The Employees' Compensation Fund bill for the year ending June 30, 1998 is $40,000 lower than the bill for the year ending June 30, 1997. The charges will be reimbursed to the Department of Labor pursuant to 5 U.S.C. 8147. TA's share of this bill will be a decrease of $40,000.

Travel and transportation of persons	0	4

Per Diem ($4,000) - Effective January 1998 the General Services Administration raised per diem rates. This increase results in a 4.4 percent increase to OS/OTP. This percentage was applied to the FY 1999 estimate to arrive at an increase of $4,000.

Rental payments to GSA 0 13

GSA rates are projected to increase 2.6 percent in FY 2000. This percentage was applied to the FY 1999 estimate to arrive at an increase of $13,000.

Communications, utilities, and miscellaneous charges 0 3

This adjustment to base is required to pay the additional cost of communications and miscellaneous charges. The increased costs are based on applying the 1.0 percent deflator to the FY 1999 estimate for rental of ADP equipment, office equipment and other equipment for an increase of $1,000; applying a 3.0 percent increase for postal services to the FY 1999 estimate for an increase of $1,000; and applying a 4.9 percent increase for FTS to the FY 1999 estimate for an increase of $1,000.

Printing and reproduction 0 7

GPO has provided an estimated rate increase of 3.1 percent. This percentage was applied to the FY 1999 estimate to arrive at an increase of $7,000.

Other services 0 12

US/OTP is requesting $12,000 to cover increased costs in other services. Other services include management and professional support services, training, maintenance of equipment, and ADP services. The increase was calculated by applying the 1.0 percent deflator to the FY 1999 estimate for other services (excluding payments to the GA Working Capital Fund and for the Commerce Administrative Management System (CAMS)).

GA, Working Capital Fund 0 84

An increase of $84,000 is required to fund increases in the Departmental WCF to maintain the current level of services.

Supplies and materials 0 2

The $2,000 increase was calculated by applying the deflator of 1.0 percent to the FY 1999 estimate for supplies and materials.

Equipment..... 0 1

Office-ADP-Other equipment ($1,000) - The $1,000 increase was calculated by applying the 1.0 percent deflator to the FY 1999 estimate for office machines, ADP, and other special equipment.

Exhibit 10

Department of Commerce
Technology Administration
Office of the Under Secretary/Office of Technology Policy
PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS
(Dollar amounts in thousands)

Activity: Under Secretary for Technology
Subactivity: Under Secretary for Technology/
Office of Technology Policy

Line Item		1998 Actual Personnel	1998 Actual Amount	1999 Currently Available Personnel	1999 Currently Available Amount	2000 Base Personnel	2000 Base Amount	2000 Estimate Personnel	2000 Estimate Amount	Increase/ (Decrease) Over 2000 Base Personnel	Increase/ (Decrease) Over 2000 Base Amount
Under Secretary for Technology/	Pos./BA	50	$8,500	52	$9,495	52	$9,674	52	$8,972	0	($702)
Office of Technology Policy	FTE/Ob	38	6,708	49	11,133	50	9,674	50	8,972	0	(702)

Exhibit 11

Department of Commerce
Technology Administration
Office of the Under Secretary/Office of Technology Policy
PROGRAM AND PERFORMANCE: REIMBURSABLE OBLIGATIONS
(Dollar amounts in thousands)

Activity: Under Secretary for Technology
Subactivity: Under Secretary for Technology
Office of Technology Policy

Line Item		1998 Actual Personnel	1998 Actual Amount	1999 Currently Available Personnel	1999 Currently Available Amount	2000 Base Personnel	2000 Base Amount	2000 Estimate Personnel	2000 Estimate Amount	Increase/ (Decrease) Over 2000 Base Personnel	Increase/ (Decrease) Over 2000 Base Amount
Under Secretary for Technology/	Pos./BA	1	$1,066	1	$575	1	$575	1	$575	0	0
Office of Technology Policy	FTE/Ob	1	1,066	1	575	1	575	1	575	0	0
Total	Pos./BA	1	1,066	1	575	1	575	1	575	0	0
	FTE/Ob	1	1,066	1	575	1	575	1	575	0	0

Department of Commerce
Technology Administration
Salaries and Expenses
JUSTIFICATION OF PROGRAM AND PERFORMANCE
OFFICE OF THE UNDER SECRETARY/OFFICE OF TECHNOLOGY POLICY

Goal Statement

The Technology Administration is the premiere civilian technology agency working with industry to improve U.S. industrial competitiveness, and serves as an advocate for U.S. industry within the Department of Commerce, other Federal agencies, and international fora. It discharges this role through the leadership of the Under Secretary; through the Office of Technology Policy's analysis, formulation and advocacy of policies to maximize the contribution of technology to economic growth; through the technology development, diffusion and commercialization programs of the National Institute of Standards and Technology; through the dissemination of technological information by the National Technical Information Service; and through the Office of Space Commercialization, which promotes the commercial use of space and develops policies that foster the competitiveness of the U.S. commercial space sector.

Base Program

The Under Secretary for Technology/Office of Technology Policy (US/OTP) is responsible for working in partnership with the private sector to analyze, develop, coordinate, and advocate national policies that maximize technology's contribution to U.S. competitiveness, economic growth, the creation of high-wage jobs, and improvements of living standards for all Americans.

More than ever before, technological leadership is vital to the national interest of the United States. Our ability to harness the power and promise of leading-edge advances in technology will determine, in large measure, our national prosperity, security and global influence. Technology underpins our fastest growing industries and high-wage jobs, and provides the tools needed to compete in every business today.

Leading economists believe that technical progress is the single most important determining factor in sustained economic growth, estimated to account for as much as half of the Nation's long-term economic growth over the past 50 years. In recent testimony before

Congress, Federal Reserve Chairman Alan Greenspan noted, "The current economic performance, with its combination of strong growth and low inflation, is as impressive as any I have witnessed in my nearly half century of daily observation of the American economy." He then attributed much of the economy's success to productivity improvements resulting from technological advance: "Signs of a major technological transformation of the economy are all around us, and the benefits are evident not only in high-tech industries but also in production processes that have long been part of our industrial economy."

Federal research has given birth to new industries, such as computers and biotechnology, and propelled U.S. firms into leadership positions in other industries, including aerospace, telecommunications, and pharmaceuticals. As the competitive environment has changed, US/OTP has served as a forceful advocate for improvements in the laws and regulations governing the commercialization of Federal research, including: removing barriers to government-industry cooperative research; increasing incentives for Federal scientists, engineers and laboratories to move their innovations into the marketplace; improving the speed, flexibility and predictability of the Federal government as a research partner with industry; ensuring the effective protection of intellectual property; making partnership opportunities more accessible and easier to identify; implementing commercial financial management practices; and expanding small businesses access to the Federal research enterprise. US/OTP continues to conduct research and analysis—in close partnership with U.S. industry, Federal research agencies, and the national laboratories—to maximize the taxpayers' return on their investment in Federal research and development.

US/OTP's program and policy activities support Commerce's Strategic Theme 2—"keep America competitive with cutting-edge science and technology and a world-class information base."

OTP has a long track record of success as an advocate for U.S. industry. For more than 15 years, the Office of Technology Policy—and its predecessor, the Office of Productivity, Technology and Innovation—has been an important voice for industry, working with other Federal agencies, members of Congress, and in international fora to foster U.S. innovation and competitiveness. Recent examples include:

- OTP's leadership in analyzing and reporting on the tight labor market for information technology workers has stimulated intense, productive national discussions on the nature and root causes of the problem, its potential impact on the U.S. economy, and ways to address the challenge. OTP's report, "America's New Deficit: The Shortage of Information Technology Workers," published in the fall of 1997, and an update produced in January 1998, have been highly influential among policy makers, legislators, U.S. industry, and the media. US/OTP's analytical and advocacy work on this issue has catalyzed public and private efforts to address the challenges, including unprecedented cooperation between the Commerce, Labor, and Education Departments.

- With the Under Secretary's leadership, the Partnership for a New Generation of Vehicles (PNGV) initiative has made strong progress toward achieving its R&D goals. In 1997, PNGV completed its "Technology Selection" phase, identifying those technologies considered to be the most promising for achieving the ambitious goals of the Partnership. As a result, PNGV research and technology development efforts are now focused on four key system areas—hybrid-electric vehicle drive, direct-injection engines, fuel cells, and lightweight materials—to advance this group of key technologies towards their ultimate performance and cost targets, and eventual incorporation in commercial vehicles.
- In the first seven months of 1998, US/OTP's Internet website received more than 1.5 million hits during more than 83,000 users sessions. Testifying to the importance of the agency's analytical work, users downloaded OTP reports more than 53,000 times. In August 1998, US/OTP unveiled a new website—Go for IT—dedicated to linking businesses, IT workers, prospective IT workers, communities, educators, educational and training institutions and others. Both the US/OTP website and the "Go for IT" website have been cited by the Scout Report—which identifies top websites for Internet users—for their depth of content, information maintenance, and presentation.
- US/OTP successfully led the Interagency Committee on Technology Transfer's formulation of a coordinated Administration response to proposed technology transfer legislation. Under US/OTP's leadership, the interagency group was able to arrive at a common position on the legislation. Speaking with a single voice contributed substantially to the House Technology Subcommittee's adoption of most of the recommendation changes. In addition, the principal industry witness testifying before the subcommittee also endorsed the majority of the recommendations of the interagency group, a testament to the group's customer focus.
- US/OTP, in partnership with state and local governments, completed the design of the Experimental Program to Stimulate Competitive Technology (EPSCoT) grant process in FY 1998, and implemented the process in the summer of 1998 with a first round grant competition. Twenty-five grant proposals were submitted under this competition, requesting a total of more than $9.4 million. Of these proposals, seven have been selected for funding at a combined level of $1.6 million. FY 2000 will be an evaluation year for the program. US/OTP will conduct a full-scale program evaluation—assessing the management, direction, and effectiveness of the program in meeting its stated objectives, as well as conducting a current needs assessment. No grants will be made in FY 2000.
- US/OTP's Office of Space Commercialization (OSC) was instrumental in shaping the President's commercial remote sensing policy, the President's National Space Transportation Policy, and space launch trade agreements with Russia, China, and currently the Ukraine. OSC's policy work has made substantial contributions to the success of the commercial remote sensing and Global Positioning System (GPS) industries that alone are projected to reach $5-15 billion by the turn of the century. OSC has also worked with the U.S. Trade Representative on space launch trade negotiations to protect U.S. interests in the global marketplace.

- Another testament to the value of US/OTP's work comes from the Congressional Research Service (CRS), which recently cited US/OTP's "extensive, in-depth analysis of international S&T issues." CRS drew upon US/OTP's science and technology analysis and foreign R&D funding information for "International Science and Technology Issues," a report published in 1998 for the House of Representative's Committee on Science.
- US/OTP's extensive research and analysis of the German Fraunhofer Institute—published as *The Fraunhofer Society: A Unique German Contract Research Organization Comes to America*—identifies: the underpinnings of its success in establishing U.S.-based affiliates—in partnership with states and universities, the void in the U.S. technology infrastructure the organization is filling, and implications for U.S. competitiveness.
- OTP has served as a forceful advocate for reinventing our environmental regulatory system, working with the states to harmonize laws and regulations, and advocating that Federal agencies move away from the current "command and control" approach towards an incentive-based system in which government sets the performance standards and allows industry to determine how best to achieve them. An upcoming OTP report on this subject has been well-received by industry and will be endorsed by several leading organizations.

Office of the Under Secretary for Technology: US/OTP's FY 2000 budget includes support for the Office of the Under Secretary in its oversight activities for NIST, NTIS and OTP; the Under Secretary's responsibilities to coordinate and lead several inter-agency and crosscutting civilian technology efforts; OTP's role as the Federal government's premiere civilian technology policy analyst and advocate; and OSC's responsibilities for promoting the commercial use of space and U.S. competitiveness in the sector.

The FY 2000 budget supports the Under Secretary's role as the chair of the high-level coordinating committee overseeing the ***Partnership for a New Generation of Vehicles*** (PNGV) initiative, a technological venture as ambitious as any America has attempted. The partnership involves seven Federal agencies, 19 national laboratories, the Nation's auto makers, and more than 300 hundred suppliers and universities. PNGV is working to achieve R&D goals in three areas: advanced manufacturing methods; technologies that can lead to near-term improvements in automobile efficiency, safety, and emissions; and research that could lead to vehicle prototypes with a threefold improvement in fuel efficiency. US/OTP supports the operations of the PNGV Secretariat, which is responsible for the technical coordination of the participating Federal agencies, liaison with USCAR (the entity representing the auto industry in the partnership), and basic record keeping for the program.

The FY 2000 budget supports the Under Secretary's participation in the ***Committee on Technology of the President's National Science and Technology Council***. Through this committee, the Under Secretary helps to establish clear national goals for Federal science and technology investments and to ensure that Federal civilian R&D priorities reflect the requirements of industry customers. The Committee on Technology is currently coordinating several major Administration R&D initiatives in materials, construction and building, manufacturing infrastructure, electronics and automotive technologies.

In addition, the budget supports the ***Commerce Science and Technology Fellowship Program*** (ComSci), which will select and place approximately twenty senior government technologists and technology managers in other agencies throughout government to provide them with a broader understanding of the scope of Federal R&D and policy activities.

The budget also supports the international activities of the Under Secretary in his capacity as the principal U.S. government representative for technology on the ***U.S.-Japan Economic Framework Talks***, the ***U.S.-Egypt Partnership for Economic Growth***, the ***U.S.-Israel Science and Technology Commission***, and the ***Presidential initiative to support the peace process in Northern Ireland***.

In FY 2000, US/OTP will continue to build stronger relationships between Federal and state efforts to promote technology-based economic development through the ***U.S. Innovation Partnership*** (USIP) initiative which seeks to leverage the resources of U.S. industry; academia; and Federal, state, and local governments and to create synergy among complementary programs. This initiative is the result of recommendations made by the President's State-Federal Task Force that was chaired by former Pennsylvania governor Richard Thornburgh (R) and former Ohio governor Richard Celeste (D). In FY 1997, the Commerce Department and the White House Office of Technology Policy concluded an agreement with the National Governors Association defining the roles and responsibilities of each under the partnership.

The FY 2000 budget also supports the ***Office of Space Commercialization*** (OSC), which is charged with fostering the competitiveness of the U.S. commercial space industry by developing and promoting national policies that encourage the effective commercial use of space. In FY 2000, OSC will continue its role in the development of a new National Space Policy and publish information on current business trends in commercial space.

OTP: Analyst, Advisor, Advocate. US/OTP's base resources support OTP's role as the Federal government's primary advocate for innovation and industrial competitiveness, analyst of civilian industrial technology issues, and incubator for new models of domestic and international technology cooperation. In support of the Under Secretary's responsibilities and the Commerce Department's leadership role in civilian technology policy, OTP must provide timely analysis, support services, and value-added information to other Technology Administration and Commerce Department agencies, the Secretary of Commerce, the White House, and other Federal agencies.

OTP will advance these objectives through the continuation of several key initiatives:

US/OTP will continue to build on its successful leadership role in meeting the Nation's critical need for information technology workers. US/OTP's groundbreaking research, analysis, and catalytic efforts have fostered a national dialogue among industry,

government, academia, and employee organizations to identify and characterize the nature of the challenge and to develop creative responses that leverage the unique strengths of each sector.

OTP's ***Meeting the Challenge*** initiative will continue its analyses of the competitive status of U.S. firms in several key American industries. Building on the highly acclaimed reports on the chemical, steel, automobile, biotechnology, and the environmental technologies industries, US/OTP will publish reports on two additional key industries in FY 2000.

OTP will administer the ***National Medal of Technology***—America's Nobel Prize—managing the nomination and evaluation process, and coordinating the Presidential awards ceremony. Awarded annually by the President, the Medal is our Nation's highest award for technological achievement. By recognizing those whose technological innovations have contributed to American job creation, economic prosperity, increased competitiveness and a higher standard of living, OTP contributes to a better public understanding of the essential role technology plays in today's global economy. OTP's website continues to produce a substantial number of inquiries and nominations. In FY 2000 OTP will work to expand its Medal outreach through the use of partnerships and information technology to solicit nominations and to increase the visibility of the Medal and understanding of technology in American life.

OTP will continue its ***Partnerships for a Competitive Economy*** (PACE) initiative. In partnership with state and local governments, business, and academia, US/OTP conducts PACE conferences around the country to maintain a dialogue with the private sector on how best to help companies and workers compete and win in the rapidly changing economy of the 21st century. PACE focuses on the importance of public-private partnerships, the government's role in creating a healthy business environment in which companies can excel, and the central role that technology plays in the Nation's economic growth and job creation.

FY 2000 will be an evaluation year for US/OTP's ***Experimental Program to Stimulate Competitive Technology*** (EPSCoT) initiative, which is designed to foster development of indigenous technology assets in states and regions traditionally under-represented in Federal R&D funding in order to foster technology-based regional economic growth. By FY 2000, EPSCoT will have conducted two grant competitions and most of the projects funded under the first grant competition will be complete or nearing completion. In FY 2000 we will conduct a full-scale program evaluation—assessing the management, direction, and effectiveness of the program in meeting its stated objectives, as well as conducting a current needs assessment.

US/OTP Compliance with the Government Performance and Results Act

US/OTP supports the Department of Commerce's Strategic Theme 2 (Science, Technology, and Information) through its responsibility for the following goal: improving technology's contribution to U.S. competitiveness, economic growth, and job creation through the analysis, development, advocacy, and implementation of national technology policies and programs. US/OTP evaluates its performance and plans its work through several mechanisms: extensive and ongoing consultation with public and private sector stakeholders, output tracking, and selected peer review. These sources of performance evaluation provide diverse and useful information for managing US/OTP's policy development, coordination, and analysis roles. For GPRA purposes, US/OTP provides the number of reports published annually as a partial indicator of analytical output. In FY 2000, US/OTP expects to publish five reports on critical technology policy issues. These reports are designed to inform and influence key members of the science and technology policy community, and are distributed to a core list that includes members of Congress, OSTP and other Administration offices, leading trade associations and think tanks, and numerous industry and academic leaders who are active on science and technology policy issues.

The longer term outcomes that derive from US/OTP reports and other outputs cannot be measured reliably, for at least two fundamental reasons: Fist outcomes associated with knowledge generation (reports, analyses, workshops, conferences, etc.) typically are extended in time, intangible in nature, and diffuse in scope. Second, policy analyses and advocacy efforts may influence the attitudes and positions of key parties, but actual policy outcomes are determined by multiple institutional, organizational, economic and political factors. US/OTP has begun to explore the feasibility and cost effectiveness if interim outcome measures, such as citation analysis and customer surveys.

Output measure	**FY 1998 Target**	**FY 1999 Target**	**FY 2000 Target**
Medal of Technology nominations	60	72	84
PNGV progress toward goals	Positive assessment by NRC peer review	Positive assessment by NRC peer review	Positive assessment by NRC peer review
USIP implementation initiatives with the States	3 MOUs for cooperation and information coordination	Meetings with senior economic and technical development officials in 3 states; conduct 2 working group meetings to set priorities and develop an agenda	Meetings with senior economic and technical development officials in 3 additional states; conduct 2 working group meetings; develop recommendations
New EPSCoT grants	4	6	0
Reports published annually	5	5	5

US/OTP output data are collected on an on-going basis and maintained within each respective US/OTP program office. All data and information associated with the annual PNGV peer review assessments are collected, analyzed, and presented by the National Research Council (NRC). With the exception of PNGV, these measures are direct and verifiable counts of US/OTP staff activities, business processes, and analytical output. PNGV peer review is conducted by the NRC, which has well-established procedures for ensuring objective and thorough expert reviews.

These output data are not comprehensive. In particular, US/OTP policy advocacy efforts consume a considerable portion of staff time and resources, but can be represented only by detailed activity metrics. As with most policy development and analysis operations, long-term outcomes cannot be isolated from other contributing factors, and consequently cannot be measured reliably.

Department of Commerce
Technology Administration
Office of the Under Secretary/Office of Technology Policy
Salaries and Expenses
INCREASE FOR FY 2000
(Dollar amounts in thousands)

		2000 Base		2000 Estimate		Increase/(Decrease) Over 2000 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Under Secretary for Technology/	Pos./BA	52	$9,674	52	$8,972	0	($702)
Office of Technology Policy.....	FTE/Obl.	51	9,674	51	8,972	0	(702)
Increase to US/OTP Core Programs	Pos./BA	51	$7,374	51	$8,374	0	$1,000
	FTE/OBL.	48	7,374	48	8,374	0	1,000

Increase to US/OTP Core Programs (0 Permanent positions, 0 FTE's, BA +$1,000,000, Direct Obligations +$1,000,000) - Over the past five budget cycles, US/OTP's base budget has remained essentially flat, rising from $7 million in FY 1996 to $7.4 million in FY 2000 (excluding EPSCoT funds). During this period, US/OTP has responded to strong industry and government demands for research, analysis, and advocacy work in several key areas, notably in meeting the Nation's fast-growing demand for IT workers and, more broadly, addressing the need for a high-skill, technically competent national workforce. This demand is evidenced by the elevation of workforce skills issues to the highest priority for corporate CEOs in maintaining their companies' ability to compete in the global marketplace.

US/OTP will use these resources to support current service levels in core programs and expand efforts in several key areas:

- Sustaining today's high level of economic prosperity requires attention to the health of the United State's business climate for innovation. US/OTP will expand its research, analysis and advocacy of current and proposed policies (economic, technology, regulatory) of the Federal and state governments and their impact on innovation and U.S. competitiveness.

- US/OTP will continue to build on its successful efforts to help the Nation meet the rapidly growing demand for information technology workers. US/OTP will work closely with industry, state and local governments, and educational institutions at all levels to develop innovative strategies and programs to educate and train American workers for these high quality, high wage jobs.

- The rapid development and deployment of new automotive technologies, together with the expected introduction of new and reformulated fuels, has the potential to revolutionize the global auto industry, with significant repercussions for America's car companies and the automotive supplier base. In FY 2000, US/OTP will build on existing PNGV programs within the Technology Administration to help the automotive supplier base, and states whose economies are linked closely to the automotive sector, prepare for these changes and to seize the opportunities that will emerge.

Exhibit 15

Department of Commerce
Technology Administration
Office of the Under Secretary/Office of Technology Policy
Salaries and Expenses
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Dollars in thousands)

Activity: Under Secretary for Technology/Office of Technology Policy
Subactivity: Under Secretary for Technology/Office of Technology Policy
Program Change: Increase to US/OTP Core Programs

Object Class		2000 Increase/ (Decrease) Obligations
11	Personnel compensation	
11.1	Full-time permanent	$0
11.9	Total personnel compensation	0
12.1	Civilian personnel benefits	0
21	Travel and transportation of persons	75
22	Transportation of things	0
23.1	Rental payments to GSA	0
23.3	Communications, utilities and miscellaneous charges	0
24	Printing and reproduction	40
25.1	Advisory and assistance services	115
25.2	Other services	500
25.3	Purchases of goods and services from Government accounts	250
25.7	Operation and maintenance of equipment	0
26	Supplies and materials	20
31	Equipment	0
32	Land and structures	0
41	Grants, subsidies and contributions	0
99	Direct obligations	1,000

Department of Commerce
Technology Administration
Office of the Under Secretary/Office of Technology Policy
Salaries and Expenses
DECREASE FOR FY 2000
(Dollar amounts in thousands)

		2000 Base		2000 Estimate		Increase/(Decrease) Over 2000 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Under Secretary for Technology/	Pos./BA	52	$9,674	52	$8,972	0	($702)
Office of Technology Policy.....	FTE/Obl.	50	9,674	50	8,972	0	(702)
Experimental Program to Stimulate	Pos./BA	2	$2,300	2	$598	0	($1,702)
Competitive Technology (EPSCoT)	FTE/Obl.	2	2,300	2	598	0	(1,702)

Experimental Program to Stimulate Competitive Technology (EPSCoT) (0 Permanent positions, 0 FTE's, BA -$1,702,000, Direct Obligations -$1,702,000) – The EPSCoT program was designed to foster development of indigenous technology assets in states and regions traditionally under-represented in Federal R&D funding in order to foster technology-based regional economic growth. By FY 2000, EPSCoT will have conducted two grant competitions, and most of the projects funded under the first grant competition will be complete or nearing completion. In FY 2000, US/OTP will conduct a full-scale program evaluation which will assess the management, direction, and effectiveness of the program in meeting its stated objectives, as well as conducting a current needs assessment. No grants will be made in FY 2000.

Exhibit 15

Department of Commerce
Technology Administration
Office of the Under Secretary/Office of Technology Policy
Salaries and Expenses
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Dollars in thousands)

Activity: Under Secretary for Technology/Office of Technology Policy
Subactivity: Under Secretary for Technology/Office of Technology Policy
Program Change: Experimental Program to Stimulate Competitive Technology (EPSCoT)

Object Class		2000 Increase/ (Decrease) Obligations
11	Personnel compensation	
11.1	Full-time permanent	$0
11.9	Total personnel compensation	0
12.1	Civilian personnel benefits	0
21	Travel and transportation of persons	0
22	Transportation of things	0
23.1	Rental payments to GSA	0
23.3	Communications, utilities and miscellaneous charges	0
24	Printing and reproduction	0
25.1	Advisory and assistance services	0
25.2	Other services	0
25.3	Purchases of goods and services from Government accounts	0
25.7	Operation and maintenance of equipment	0
26	Supplies and materials	0
31	Equipment	0
32	Land and structures	0
41	Grants, subsidies and contributions	(1,702)
99	Direct obligations	(1,702)

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Exhibit 16

Department of Commerce
Technology Administration
Office of the Under Secretary/Office of Technology Policy
Salaries and Expenses
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	1998 Actual	1999 Currently Available	2000 Base	2000 Estimate	Increase/ (Decrease) Over 2000 Base
11	Personnel compensation					
11.1	Full-time permanent	$1,993	$2,466	$2,522	$2,522	0
11.3	Other than full-time permanent	407	428	444	444	0
11.5	Other personnel compensation	88	88	88	88	0
11.9	Total personnel compensation	2,488	2,982	3,054	3,054	0
12.1	Civilian personnel benefits	457	585	658	658	0
13	Benefits for former personnel	18	18	18	18	0
21	Travel and transportation of persons	300	458	392	467	$75
22	Transportation of things	13	31	24	24	0
23.1	Rental payments to GSA	509	617	623	623	0
23.2	Rental payments to others	0	0	0	0	0
23.3	Communications, utilities, and miscellaneous charges	84	184	143	143	0
24	Printing and reproduction	86	274	173	213	40
25.1	Advisory and assistance services	435	460	460	510	50
25.2	Other services	939	464	1,128	1,693	565
25.3	Purchases of goods and services from government account	1,097	979	951	1,201	250
25.7	Operation and maintenance of equipment	9	18	18	18	0
26	Supplies and materials	89	146	124	144	20
31	Equipment	184	221	206	206	0
41	Grants, subsidies, and contributions	0	3,696	1,702	0	(1,702)
42	Insurance claims and indemnities	0	0	0	0	0
99	Total Obligations	6,708	11,133	9,674	8,972	(702)
	Less Prior Year Recoveries	(42)				
	Less Prior Year Unobligated Balance	0	(1,638)			
	Plus Prior Year Unobligated Balance	1,638				
	Plus Unobligated Balance Expiring	196				
	Total Requirements	8,500	9,495	9,674	8,972	(702)

Personnel Data	1998 Actual	1999 Currently Available	2000 Base	2000 Estimate	Increase/ (Decrease) Over 2000 Base
Full-time equivalent employment:					
Full-time permanent	33	36	37	37	0
Other than full-time permanent	5	13	13	13	0
Total	38	49	50	50	0
Authorized Positions:					
Full-time permanent	50	52	52	52	0
Other than full-time permanent	0	0	0	0	0
Total	50	52	52	52	0

Exhibit 17

Department of Commerce
Technology Administration
Office of the Under Secretary/Office of Technology Policy
Salaries and Expenses
DETAILED REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2000 Adjustment to Base	2000 Base	2000 Estimate	Increase/ (Decrease) over 2000 Base
11	Personnel Compensation				
11.1	Full-time permanent				
	Executive level	$6	$12	$264	$252
	Senior executive service	11	592	468	(124)
	General schedule	39	1,918	1,790	(128)
	Subtotal	56	2,522	2,522	0
11.3	Other than full-time permanent				
	Senior executive service	(2)	44	44	0
	General schedule	14	289	289	0
	Experts & consultants	4	111	111	0
	Subtotal	16	444	444	0
11.5	Other personnel compensation				
	Overtime	0	8	8	0
	SES performance awards	0	7	7	0
	Cash awards	0	73	73	0
	Other	0	0	0	0
	Subtotal	0	88	88	0
11.9	Total personnel compensation	72	3,054	3,054	0

	Object Class	2000 Adjustment to Base	2000 Base	2000 Estimate	Increase/ (Decrease) over 2000 Base
12.1	Civilian personnel benefits				
	Civil service retirement	(8)	88	88	0
	Federal employees' retirement	17	212	212	0
	Contribution to civil service retirement fund	0	5	5	0
	Thrift savings plan	3	20	20	0
	Federal Insurance Contribution Act	17	158	158	0
	Health insurance	3	80	80	0
	Life insurance	1	4	4	0
	Employees' Compensation Fund	40	91	91	0
	Other	0	0	0	0
	Subtotal	73	658	658	0
13	Benefits for former personnel				
	Severance pay	0	0	0	0
	Unemployment compensation	0	18	18	0
	Subtotal	0	18	18	0
21	Travel and transportation of persons				
	Common carrier	0	174	211	37
	Mileage	0	6	8	2
	Per diem/actual	0	159	186	27
	Other	0	53	62	9
	Subtotal	0	392	467	75
22	Transportation of things	0	24	24	0
23.1	Rental payments to GSA	13	623	623	0
23.2	Rental payments to others	0	0	0	0

	Object Class	2000 Adjustment to Base	2000 Base	2000 Estimate	Increase/ (Decrease) over 2000 Base
23.3	Communications, utilities, and misc. charges				
	Rental of ADP equipment	0	8	8	0
	Rental of office copying equipment	0	8	8	0
	Other equipment rental	0	15	15	0
	Federal telecommunications system	1	18	18	0
	Other telecommunications services	1	84	84	0
	Postal Service by USPS	1	10	10	0
	Other	0	0	0	0
	Subtotal	3	143	143	0
24	Printing and reproduction				
	Publications	(14)	133	173	40
	Other	1	40	40	0
	Subtotal	(13)	173	213	40
25.1	Advisory and asssistance services				
	Management & professional support services	1	115	127	12
	Special studies and analyses	0	345	383	38
	Engineering and technical services	0	0	0	0
	Subtotal	1	460	510	50
25.2	Other services				
	Training	0	10	10	0
	ADP Services	2	55	55	0
	Other	4	1,063	1,628	565
	Subtotal	6	1,128	1,693	565

	Object Class	2000 Adjustment to Base	2000 Base	2000 Estimate	Increase/ (Decrease) over 2000 Base
25.3	Purchases of goods and services from Government accounts				
	GA, WCF	93	576	576	0
	Other	(72)	375	625	250
	Subtotal	21	951	1,201	250
25.7	Operation and maintenance of equipment	0	18	18	0
26	Supplies and materials				
	Office supplies	2	96	116	20
	ADP supplies	0	21	21	0
	Other	0	7	7	0
	Subtotal	2	124	144	20
31	Equipment				
	Office machines and other equipment	0	75	75	0
	ADP equipment	1	131	131	0
	Other	0	0	0	0
	Subtotal	1	206	206	0
41	Grants, subsidies, and contributions	0	1,702	0	(1,702)
99	Total Obligations	179	9,674	8,972	(702)

Department of Commerce
Technology Administration
Office of the Under Secretary/Office of Technology Policy

Salaries and Expenses
APPROPRIATION LANGUAGE AND CODE CITATIONS

"For necessary expenses for the Under Secretary for Technology/Office of Technology Policy, $8,972,000, of which not to exceed $600,000 shall remain available until September 30, 2000."

15 U.S.C. 3704(a)-(c)	15 U.S.C. 1533
15 U.S.C. 3704(d)	15 U.S.C. 1535
15 U.S.C, 3704f	15 U.S.C. 4603 and 4603a
15 U.S.C. 3704a	15 U.S.C. Appx. 5801
15 U.S.C. 3710(g)	22 U.S.C. 2656d(a)
15 U.S.C. 3711	22 U.S.C. 5872
15 U.S.C. 3711 Note	35 U.S.C. 206-209, and
15 U.S.C. 1511e	Executive Order 10096

15 U.S.C. 3704(a)-(c) establishes the Technology Administration and places within it the National Institute of Standards and Technology, the National Technical Information Service, and the Office of Technology Policy; creates the positions of Under Secretary for Technology and Assistant Secretary for Technology Policy; provides for the management of the Technology Administration by the Under Secretary and the supervision of its agencies, programs and activities; and provides the basic authority for preparing technology policy analyses, experiments, studies, and reports.

15 U.S.C. 3704(d) contains basic authority for providing information and services relating to Japanese technical activities, developments and literature.

15 U.S.C. 3704a establishes within the Technology Administration a Clearinghouse on State and Local Initiatives on Productivity, Technology and Innovation.

15 U.S.C. 3704f establishes the Experimental Program to Stimulate Competitive Technology (EPSCoT) to strengthen the technological competitiveness of states.

15 U.S.C. 3710(g) authorizes the Secretary to provide services to Federal agencies for the commercialization of technology developed at Federal laboratories, to monitor agency use of cooperative R&D agreements as a means of transferring federally funded technology to the private sector, and to prepare related reports.

15 U.S.C. 3711 note establishes a separate nomination category known as Environmental Technology for the National Technology Medal.

15 U.S.C. 1511(e) establishes an Office of Space Commercialization within the Department of Commerce to promote commercial investment of space.

15 U.S.C. 3711 provides for the award by the President of the National Medal of Technology based upon recommendations of the Secretary of Commerce.

15 U.S.C. 1533 provides for the establishment of the Commerce, Science, and Technology Fellowship Program, which is administered by the Office of the Under Secretary, to enhance the career development of promising Federal employees.

15 U.S.C. 1535 contains basic authority for space commerce.

15 U.S.C. 4603 and 4603a names the Under Secretary for Technology to the Advisory Committee on Federal Participation in Sematech and provides for the issuance of certain reports.

15 U.S.C. Appendix 5801 authorizes and encourages The Office of Space Commerce "to conduct trade missions to appropriate independent states of the former Soviet Union for the purpose of familiarizing United States aerospace industry representatives with space hardware, space technologies, and space services that may be available from the independent states, and with the business practices and overall business climate in the independent states. The Office of Space Commerce shall also advise NASA of potential acquisition of the above items by the independent states, specifically any anticompetitive issues the office may observe."

22 U.S.C. 2656d(a) provides for consultations between the Secretary of State and Secretary of Commerce on international science and technology agreements, specifically recognizing their potential impact on Federal technology management policies.

22 U.S.C. 5872 repeats 15 U.S.C. Appx. 5801 and further authorizing the Office of Space Commerce to monitor certain activities in this area.

35 U.S.C. 206-209 and E.O. 10096 provide for the promulgation of policies and regulations concerning the ownership of patents between agencies and their contractors and employees and the licensing of federally owned inventions and also for the preparation of certain reports regarding statutory invention registrations as an alternative to formal patents.

DEPARTMENT OF COMMERCE
TECHNOLOGY ADMINISTRATION
Office of the Under Secretary/Office of Technology Policy
Salaries and Expenses
SCHEDULE OF ADVISORY AND ASSISTANCE SERVICES
(Obligations in thousands of dollars)

Exhibit 34

	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate
Management and professional support services	$109	$115	$127
Studies, analyses, and evaluations	326	345	383
Total	435	460	510

Management and professional services are used to provide assistance to U.S. citizens, corporations, and policy makers in understanding and dealing with challenges and opportunities involving the globalization of science, technology and industrial research and development.

Special studies and analysis to improve process and procedures for the EPSCoT Program.

Department of Commerce
Technology Administration
Office of the Under Secretary/Office of Technology Policy
Salaries and Expenses

PERIODICALS, PAMPHLETS, AND AUDIOVISUAL PRODUCTS
(Obligations in thousands)

	1997 Actual	1998 Actual	1999 Estimate	2000 Estimate
Periodicals	$5	$5	$4	$4
Pamphlets	6	5	4	4
Audiovisuals	0	0	0	0
Total	11	10	8	8

Department of Commerce
Technology Administration
Office of the Under Secretary/Office of Technology Policy

Average Salary

	1998 Actual	1999 Estimate	2000 Estimate
Average ES salary	$118,439	$122,798	$128,641
Average Career Path Salary	57,488	60,440	63,100